ABSTRACT

A video data storage system holds MPEG compressed video data on a hard disk drive. A transport decoder receives a bit-stream including the compressed audio and video data formatted as transport packets and that reformats the compressed audio and video data into respective program elementary stream (PES) packets. The system stores the audio and video PES packets onto a disk. The system also includes separate audio and video buffer memories that hold the audio and video PES packets when they are read from the disk drive. An MPEG decoder separately accesses the audio and video data from the respective audio and video buffer memories. The audio buffer memory has an amount of memory sufficient to provide the MPEG decoder with audio data representing ten seconds of decoded audio signal. In one embodiment, when a soft error occurs, the MPEG decoder continues to read and decode data from the audio buffer, but stops reading and decoding data from the video buffer. During this time, the MPEG decoder continually displays a current image. After the disk has recovered from the soft error, the MPEG decoder continues to retrieve and decode video data from the video buffer memory and drops P or B frames to resynchronize the video data stream to the audio data stream.